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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,379	09/17/2003	David M. Skinlo	Q137-US10	8949
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MARY ELIZABETH BUSH QUALLION LLC P.O. BOX 923127 SYLMAR, CA 91392-3127			EXAMINER PARSONS, THOMAS H	
			ART UNIT 1745	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/666,379

Applicant(s)

SKINLO, DAVID M.

Examiner

Thomas H. Parsons

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 66-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 66-91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Response to Arguments

1. Applicant's arguments filed 26 June 2007 have been fully considered but they are not persuasive.

The Applicant argues, "Claim 66 specifies transporting electrolyte through the opening and into the case while resting the end cap on the case with an edge of the case positioned between the tab and the case." Accordingly, the obviousness rejection is not supported unless Teramoto in view of Kito teaches or suggest resting the end cap on the case with an edge of the case positioned between the tab and the case while transporting electrolyte through the opening and into the case.

In response, it is unclear as to how the edge of the case can be positioned between the tab and the case itself. The structural relationship between the end cap, the edge of the case, and the tab is unclear. However, Kito in Figure 4 discloses providing a lower lid 47 positioned between the edge of the case and the tab while transporting electrolyte through the opening and into the case, afterwhich, the case is sealed with an upper lid 47.

(Previous) DETAILED ACTION

Claim Rejections- 35 USC § 103

2. Claims 66-75,88,91 **stand** rejected under 35 U.S.C. 103(a) as being unpatentable over Teramoto et al. (US 5,501,916) in view of Kito et al. (US 6,399,242 B2).

With respect to claim 66,68,71,74,75,91, Teramoto et al. disclose a method of forming a lithium battery comprising arranging the positive electrode in electrical communication with a

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winding core (48) (pin), insulating the negative electrode from the core, spirally winding the electrode around the core, transporting the electrolyte through the opening of the battery case and sealing the opening with the battery lid (47). See Example 2 and Figure 9. However, Teramoto et al. do not teach the use of tab to provide electrical communication between the battery lid and the negative electrode. Kitoh et al. teach a lithium battery comprising a battery case, a first battery lid (16), a second battery lid (17), wherein flexible conductive tabs are disposed past a center point of the second battery lid and are electrically connected to the second battery lid. As a result, the internal resistance is reduced and current extraction from the internal electrode become easier. See Figure 4; Column 5, Lines 20-43. Therefore, it would have been obvious to one of ordinary skill in the art to use flexible conductive tabs to electrically connect the negative electrode to the second battery lid in the battery of Teramoto et al., because Kitoh et al. teach such electrical connection can reduce internal resistance and facilitate current extraction from the electrode.

With respect to claim 67, Kitoh et al. teach the battery lid is essentially perpendicular to the opening of the battery case. See Figure 4.

With respect to claims 69,70,72,73, Kitoh et al. do not teach the tab connected to the second battery lid continuously over a distance extending from the first location to the second location. Also, the distance of connection is shorter than the radius of the second battery lid. See Figure 4.

With respect to claim 88, Teramoto et al. teach the positive electrode is in electrical commutation with the terminal core via a weld (52). See Example 2.

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3. Claim 89 **stands** rejected under 35 U.S.C. 103(a) as being unpatentable over Teramoto et al. (US 5,501,916) and Kitoh et al. (US 6,399,242 B2) as applied to claims 43-45,66-69,83,86 above, and further in view of Cogan (US 5,755,759). Teramoto et al. and Kitoh et al. teach a method of forming a lithium battery as described above in Paragraph 3. However, Teramoto et al. and Kitoh et al., do not disclose the use of Ptlr alloy as the pin. Cogan teaches a biomedical device wherein the wire electrode is made of Ptlr alloy because it can record or stimulate physiological function. See Column 3, Lines 43-56. Therefore, it would have been obvious to one of ordinary skill in the art to use Ptlr alloy as the pin onto the battery of Teramoto and Kitoh, because Cogan teaches the alloy can be used in implantable medical device.

(New) DETAILED ACTION

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 66-91 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 66, in lines 9-10 recites, "...while resting the end cap on the case with an edge of the case positioned between the tab and the case,..."

It is unclear as to how the edge of the case can be positioned between the tab and the case itself. The structural relationship between the end cap, the edge of the case, and the tab is unclear.

Claims 67-91 are rejected to as being dependent upon base claim 66.

(New) DETAILED ACTION

Specification

6. The disclosure is objected to because of the following informalities:

Page 12, line 28, suggest changing "tab 90" to --tab 94--.

Appropriate correction is required.

Claim Objections

7. Claim 68 is objected to because of the following informalities:

Line 2, the text, "an inner face the end cap" appears awkwardly worded.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 66-91 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakahara et al.

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The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claim 66: Nakahara et al. in Figures 16 and 21-24 disclose a method of forming a battery, comprising:

- arranging battery components (84) such that
 - an electrode (70) is in electrical communication with a pin (12),
 - an electrode (30) is electrically insulated from the pin,
 - a tab (94) provides electrical communication between an end cap (114) and the electrode that is electrically isolated from the pin,
 - the electrodes are positioned in a case (100) and are wound around the pin, and
 - the end cap is configured to close an opening in the case;
- transporting electrolyte through the opening and into the case while resting the end cap on the case; and
- sealing the opening with the end cap. See col. 6: 2-9, col. 7: 3-col. 8: 16.

Claim 67: Nakahara et al. in Figures 22-23 disclose that the tab (94) is connected to the end cap (114) such that resting the end cap on the case holds the end cap in an orientation that is substantially perpendicular to the opening. See col. 7: 3-col. 8: 16.

Claim 68: Nakahara et al. in Figures 21-24 disclose that a weld (110) connects a flat portion of the tab to an inner face (112) of the end cap (110). See col. 7: 3-col. 8: 16.

Claim 69: Nakahara et al. in Figure 23 disclose that the end cap has a radius; and the opening is sealed with the cap such that the tab is positioned adjacent to the end cap without being connected to the end cap for a distance that is greater the radius. See col. 7: 3-col. 8: 16.

Claim 70: Nakahara et al. in Figures 21-24 disclose that the tab (94) is connected to a connection location on the end cap (114) and the end cap is rested on the case such that the connection location is above a center point on the end cap. See col. 7: 3-col. 8: 16.

Claim 71: Nakahara et al. in Figures 21-24 disclose that the end cap has a radius; and the end cap (114) is rested on the case (100) such the end cap overlaps (122) the case by at least an amount that exceeds the radius. See col. 7: 3-col. 8: 16.

Claim 72: Nakahara et al. in Figures 21-24 disclose that the opening is sealed with the end cap such that the tab (94) extends from a first location adjacent to the case past a center point of the end cap to a second location (110) where the tab is electrically connected to the end cap. See col. 7: 3-col. 8: 16.

Claim 73: Nakahara et al. in Figures 21-24 disclose that the tab is not connected to the end cap continuously over a distance extending from the first location to the second location. See col. 7: 3-col. 8: 16.

Claim 74: Nakahara et al. in Figure 16 disclose that the electrodes (30, 70) are electrode strips wound around the pin (12) so as to form a spiral role (84) on the pin.

Claim 75: Nakahara et al. in Figure 16 disclose that the spiral role (84) includes at least one separator (64) separating the electrodes.

Claim 76: Nakahara et al. in Figures 6-11 disclose that a mandrel (48) is mounted on the pin (12) such that the-electrodes are wound around the pin and the mandrel. See col. 4: 45-col. 7: 49).

Claim 77: Nakahara et al. in Figures 6-11 disclose that the mandrel (48) includes a longitudinal slot (52); and wherein one of the electrodes is in electrical communication with the pin and also extends through the mandrel slot. See col. 4: 45-col. 7: 49.

Claim 78: Nakahara et al. in Figures 6-11 and 16 disclose that the electrodes in electrical communication with the pin includes a region that is positioned between the mandrel and the pin. See col. 6: 2-9, and col. 4: 45-col. 7:49.

Claim 79: Nakahara et al. in Figures 14-15 disclose that the electrodes in electrical communication with the pin includes active material positioned on a substrate, the substrate is positioned between the mandrel and the pin without the active material being positioned between the mandrel and the pin (col. 5: 50-col. 6: 19). See also Figures 6-11, 16 and 21-24, See col. 6: 2-9, and col. 4: 45-col. 7:49.

Claim 80: Nakahara et al. in Figure 7 disclose that the mandrel (48) is crimped onto the pin (12) (col. 5: 12-21).

Claim 81: Nakahara et al. in Figure 6 disclose that a weld (44) attaches the mandrel (48) to the pin (12) (col. 4: 62-col. 5: 12).

Claim 82: Nakahara et al. disclose that the mandrel (48) includes titanium or an alloy of titanium (col. 4: 62-63).

Claim 83: Nakahara et al. in Figure 8 disclose that the mandrel (48) includes a tube (50)(col. 5: 22-28).

Claim 84: Nakahara et al. in Figure 8 disclose that the pin (12) is positioned in an interior of the tube (50)(col. 5: 22-28).

Claim 85: Nakahara et al. disclose that the mandrel (48) has a c-shaped cross-section (col. 4: 58-61)

Claim 86: Nakahara et al. discloses in Figures 6-11 that the mandrel (48) is fitted around the pin (12) such that the electrodes are wound around the pin and the mandrel. See col. 4: 45-col. 7: 49.

Claim 87: Nakahara et al. disclose that the wherein the mandrel is a reinforcing mandrel (col. 4: 62-col. 5: 21).

Claim 88: Nakahara et al. disclose that the at least one weld directly connects the pin the electrode in electrical communication with the pin (col. 2: 3-12).

Claim 89: Nakahara et al. disclose that the pin includes of a Ptlr alloy (col. 2: 15-20).

Claim 90: Nakahara et al. disclose that the end cap includes an electrical insulator, the pin extends through the electrical insulator, and the pin is hermetically sealed to the electrical insulator (col. 4: 7-23).

Claim 91: Nakahara et al. disclose that the case is electrically conducting (col. 8: 15-16).


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Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas H. Parsons whose telephone number is (571) 272-1290. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


PATRICK JOSEPH RYAN
SUPERVISOR EXAMINER

Thomas H Parsons
Examiner
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